

SEQUENCE LISTING

<110> Arizona Board of Regents, on behalf of Arizona Sta

<120> COMPOSITION AND METHOD FOR ENHANCING IMMUNE RESPONSE

<130> 130588.91361

<140> FILED HEREWITH

<141> 2003-03-06

<150> 60/362,247

<151> 2002-03-06

<160> 9

<170> PatentIn Ver. 2.1

<210> 1

<211> 35

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(35)

<223> HIV-1 gp41 peptide portion (residues 650-685)

<400> 1

Ser	Gln	Thr	Gln	Gln	Glu	Lys	Asn	Glu	Gln	Glu	Leu	Leu	Glu	Leu	Asp
1				5					10					15	

Lys	Trp	Ala	Ser	Leu	Trp	Asn	Trp	Phe	Asp	Ile	Thr	Asn	Trp	Leu	Trp
			20					25					30		

Tyr	Ile	Lys
		35

<210> 2

<211> 6

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(6)

<223> HIV-1 gp41 peptide portion (residues 663-668)

<400> 2

Glu Leu Asp Lys Trp Ala

1 5

<210> 3

<211> 36

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 3

Cys Ser Gln Thr Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu

1 5 10 15

Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu

20 25 30

Trp Tyr Ile Lys

35

<210> 4

<211> 36

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(35)

<223> HIV-1 isolate MN clone V5 (residues 649-685)

<400> 4

Ser Gln Thr Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Gly Leu Asp

1 5 10 15

Lys Trp Glu Ser Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu Trp

20 25 30

Tyr Ile Lys Ile

35

<210> 5

<211> 36

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(36)

<223> HIV-1 isolate 593 clone (residues 649-685)

<400> 5

Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
1 5 10 15

Lys Trp Ala Gly Leu Trp Asn Trp Phe Glu Ile Thr Asn Trp Leu Trp
20 25 30

Tyr Ile Lys Ile
35

<210> 6

<211> 36

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(36)

<223> HIV-1 isolate 98BRRS012 (residues 649-685)

<400> 6

Ser Gln Asn Gln Gln Glu Lys Asn Glu His Glu Leu Leu Glu Leu Asp
1 5 10 15

Lys Trp Ala Asn Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu Trp
20 25 30

Tyr Ile Lys Ile
35

<210> 7

<211> 36

<212> PRT

<213> Human immunodeficiency virus type 1

<220>

<221> PEPTIDE

<222> (1)..(36)

<223> HIV-1 isolate 19242v3.20 (residues 649-685)

<400> 7

Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Asp Leu Leu Glu Leu Asp
 1 5 10 15

Lys Trp Ala Ser Leu Trp Asn Trp Phe Asp Ile Ser Asn Trp Leu Trp
 20 25 30

Tyr Ile Lys Ile
 35

<210> 8
 <211> 522
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: CTB-P1 FUSION
 GENE

<400> 8
 ccatggctat caagctcaag tttggagtgt tcttcactgt gctccttagc tctgcctatg 60
 cacatggcac cccacaaaac atcactgact tgtgtgctga gtaccacaac acccaaatcc 120
 acaaccctca atgacaagat ctttagctac accgagagcc ttgctggcaa gagggagatg 180
 gctatcatcc cttcaagaat ggtgctacct tccaagtgga ggtgcctgga agccaacaca 240
 ttgatagcca aaagaaggcc attgagagga tgaaggacac attaggatag cttacctcac 300
 tgaggctaag gtggagaagc tttgtgtgtg gaacaacaag actccacatg ctattgctgc 360
 cattagcatg gcaaattggtc ctggaccttc ccaaacccaa caagagaaga atgagcaaga 420
 gcttttggag ttggacaagt ggcaagcctt tggaattggt ttgacatcac caattggcct 480
 tggatatca agatctctga gaaggatgaa ctctaagagc tc 522

<210> 9
 <211> 171
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: CTB-P1 FUSION
 PROTEIN

<400> 9
 Met Ala Ile Lys Leu Lys Phe Gly Val Phe Phe Thr Val Leu Leu Ser
 1 5 10 15

Ser Ala Tyr Ala His Gly Thr Pro Gln Asn Ile Thr Asp Leu Cys Ala
 20 25 30

Glu Tyr His Asn Thr Gln Ile His Thr Leu Asn Asp Lys Ile Phe Ser

35

40

Tyr Thr Glu Ser Leu Ala Gly Lys Arg Glu Met Ala Ile Ile Thr Phe
50 55 60

Lys Asn Gly Ala Thr Phe Gln Val Glu Val Pro Gly Ser Gln His Ile
65 70 75 80

Asp Ser Gln Lys Lys Ala Ile Glu Arg Met Lys Asp Thr Leu Arg Ile
85 90 95

Ala Tyr Leu Thr Glu Ala Lys Val Glu Lys Leu Cys Val Trp Asn Asn
100 105 110

Lys Thr Pro His Ala Ile Ala Ala Ile Ser Met Ala Asn Gly Pro Gly
115 120 125

Pro Ser Gln Thr Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu
130 135 140

Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu
145 150 155 160

Trp Tyr Ile Lys Ile Ser Glu Lys Asp Glu Leu
165 170